

# Current Addendums

# **LRFD Bridge Design Guidelines**

Revision: April 2005
To: Section 2.5
Date: April 08, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### **General Quantities - Section 2.5**

<u>Page</u>	<u>Date</u>	<u>Description</u>
1-3	March 2005	Added pay item for Seal Coat, Grade C.
1-4	Jan. 2005	No change printed on back of 1-3.
4 7	In 0005	The date of the other ways the man the stage of the stage
1-7	Jan. 2005	Updated to show pay items that are now in effect.
1-8	Jan. 2005	No change printed on back of 1-7.
1-9	Jan. 2005	Updated to show pay items that are now in effect.
1-10	Jan. 2005	No change printed on back of 1-9.
1-13	Jan. 2005	Undeted to show pay items that are now in effect
_		Updated to show pay items that are now in effect.
1-14	Jan. 2005	No change printed on back of 1-13.
1-15	March 2005	Undeted to show pay items that are now in effect
		Updated to show pay items that are now in effect.
1-16	Jan. 2005	Updated to show pay items that are now in effect.
1 17	March 2005	Undeted to show now items that are now in effect
1-17		Updated to show pay items that are now in effect.
1-18	Jan. 2005	Updated to show pay items that are now in effect.
247	lon 2005	Davised note for Seel Coat to add Crade C
2.1-7	Jan. 2005	Revised note for Seal Coat to add Grade C.
2.1-8	Jan. 2005	No change printed on back of 2.1-7.

# **LRFD Bridge Design Guidelines**

Revision: April 2005
To: Section 3.30
Date: April 08, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### **General Superstructure – Section 3.30**

<u>Page</u>	<u>Date</u>	<u>Description</u>
1.5-7	March 2005	Added deck cracking check note.
1.5-8	Jan. 2005	No change printed on back of 1.5-7.
1.7-4	March 2005	No change printed on front of 1.7-5.
1.7-5	March 2005	Corrected 9" slab to 8 1/2" slab.
1.7-6	March 2005	Corrected 9" slab to 8 1/2" slab.
1.8-1	Jan. 2005	No change printed on back of 1.7-6.
		9 ,
2.2-1	March 2005	No change printed on front of 2.2-2.
2.2-2	Jan. 2005	Corrected drafting error.
2.2-3	March 2005	Corrected bar callout "S" to "P1".
2.2-4	March 2005	No change printed on back of 2.2-3.

# **LRFD Bridge Design Guidelines**

Revision: April 2005
To: Section 3.32
Date: April 08, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### **Protective Barricades – Section 3.32**

<u>Page</u>	<u>Date</u>	<u>Description</u>
2.3-1	Jan. 2005	No change printed on front of 2.3-2.
2.3-2	Jan. 2005	Corrected 9" slab to 8 1/2" slab.
2.9-1	Jan. 2005	No change printed on front of 2.10-1.
2.10-1	Jan. 2005	Corrected 9" slab to 8 1/2" slab.
2.11-1	Jan. 2005	No change printed on front of 3.1-1.
3.1-1	March 2005	Corrected reference page number.

# **LRFD Bridge Design Guidelines**

Revision: April 2005
To: Section 3.35
Date: April 08, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### **Expansion Devices – Section 3.35**

<u>Page</u>	<u>Date</u>	<u>Description</u>
3.4-2	Jan. 2005	No change printed on front of 3.5-1.
3.5-1	Jan. 2005	Corrected 9" slab to 8 1/2" slab.
5.9-1	Jan. 2005	Corrected 9" slab to 8 1/2" slab.
6.1-1	Jan. 2005	No change printed on back of 5.9-1.

# **LRFD Bridge Design Guidelines**

Revision: April 2005
To: Section 3.76
Date: April 08, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### Concrete Pile Cap Non-Integral End Bents – Section 3.76

<u>Page</u>	<u>Date</u>	<u>Description</u>
2.3-1	Jan. 2005	No change printed on front of 2.3-2.
2.3-2	Jan. 2005	Revised live load surcharge information.
0.4.4		N
3.1-1	Jan. 2005	No change printed on front of 3.2-1.
3.2-1	Jan. 2005	Corrected layout length.
3.2-2	Jan. 2005	Corrected layout length.
3.2-3	Jan. 2005	Corrected layout length.
3.2-8	Jan. 2005	Corrected drafting error.
3.3-1	Jan. 2005	Revised wing brace details.

# **LRFD Bridge Design Guidelines**

Revision: April 2005
To: Section 3.77
Date: April 08, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### Concrete Pile Cap Integral End Bents – Section 3.77

<u>Page</u>	<u>Date</u>	<u>Description</u>
3.1-1	Jan. 2005	No change printed on front of 3.2-1
3.2-1	Jan. 2005	Revised wing brace details.
3.3-1	Jan. 2005	Corrected layout length.
3.3-2	Jan. 2005	Corrected layout length.
3.4-1	Jan. 2005	Corrected layout length.
3.4-2	Jan. 2005	Corrected layout length.

# **LRFD Bridge Design Guidelines**

Revision: April 2005
To: Section 4.0
Date: April 08, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### Office Notes - Section 4.0

<u>Page</u>	<u>Date</u>	<u>Description</u>
H1-A	Jan. 2005	No change printed on front of H1-B.
H1-B	Jan. 2005	Changed "50#" to "30#" roofing felt on note H1.10.
J1-A	Jan. 2005	Added bond breaker information to note J1-13.
J1-B	Jan. 2005	No change printed on the back of J1-A.

# **LRFD Bridge Design Guidelines**

Revision: April 2005
To: Section 8.1
Date: April 08, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### **Preliminary Design – Section 8.1**

<u>Page</u>	<u>Date</u>	<u>Description</u>
2.16-8	Jan. 2005	No change printed on front of 2.16-9.
2.16-9	Jan. 2005	Added "ATT:" and "Route" to letter format.
2.16-10	Jan. 2005	Added "ATT:" and "Route" to letter format.
2.17-1	Jan. 2005	No change printed on the back of 2.16-10.

# **LRFD Bridge Design Guidelines**

 Revision:
 3.31-04\_21\_05

 To:
 Section 3.31

 Date:
 June 06, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### Bearings - Section 3.31

<u>Page</u>	<u>Date</u>	<u>Description</u>
2.5-4	Jan. 2005	No change printed on front of 2.5-4.1
2.5-4.1	June 2005	Added details showing dimensions used on chart on page 2.5-4
Blank		Printed on front of page 3.1-1
3.1-1	Jan. 2005	No change printed on back of Blank

# **LRFD Bridge Design Guidelines**

Revision: June 2005
To: Section 4.0
Date: June 06, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### Office Notes - Section 4.0

<u>Page</u>	<u>Date</u>	<u>Description</u>
H10-A2	Jan. 2005	Added notes H10.13 thru H10.18 (These were removed from H10-C and renamed.) Underlined "horizontal" in note H10.12.1 to show it can be omitted if not applicable.
H10-B	March 2005	Revised note H10.86 for clarification.
H10-C	Jan. 2005	Removed notes H10.92 thru H10.98.
H11-A1	Jan. 2005	No change printed on the back of H10-C.

# **LRFD Bridge Design Guidelines**

Revision: May 13, 2005
To: Section 8.1
Date: June 06, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### **Preliminary Design – Section 8.1**

<u>Page</u>	<u>Date</u>	<u>Description</u>
2.14-1	Jan. 2005	No change printed on front of 2.15-1.
2.15-1	Jan. 2005	Added Preliminary Cost Estimate should be rounded up to nearst thousand dollars.
2.15-1.1	Jan. 2005	Corrected spelling error
2.16-1	Jan. 2005	No change printed on the back of 2.15-1.1.
2.16-10	Jan. 2005	Revised format removed from (Duplication)
2.17-1	Jan. 2005	No change printed on back of 2.16-10
2.29-3	Jan. 2005	Added information for request for Final Designer
2.29-4	June 2005	No change printed on back of 2.29-3
3.3-4	Jan. 2005	No change printed on front of 3.3-5
3.3-5	Jan. 2005	Revised sheet to current practice

# **LRFD Bridge Design Guidelines**

Revision: June, 2005
To: Section 8.1
Date: June 06, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### **Preliminary Design – Section 8.1**

<u>Page</u>	<u>Date</u>	<u>Description</u>
2.17-4	Jan. 2005	No change printed on front of 2.18-1.
2.18-1	Jan. 2005	Added note to consider encasing piling in concrete.
2.19	Jan. 2005	No change printed on the front of 2.19-1.
2.19-1	Jan. 2005	Added choice of drilled shaft to type of footings.
2.21-6	Jan. 2005	No change printed on the front of 2.22-1
2.22-1	Jan. 2005	Added information for Design Layout sheet.
2.25-1	Jan. 2005	Changed contact to Assistant State Bridge Engineer.
2.26-1	June 2005	No change printed on back of 2.25-1

# **LRFD Bridge Design Guidelines**

Revision: July 2005

To: Section 4.0 – Office Notes

Date: July 22, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### Office Notes - Section 4.0

<u>Page</u>	<u>Date</u>	<u>Description</u>
H2-C3	Jan. 2005	No change printed on front of H2-C4.
H2-C4	Jan. 2005	Revised note H2.68 to coordinate with Pay Items.

# **LRFD Bridge Design Guidelines**

Revision: Aug. 2005

To: Section 4.0 – Office Notes

Date: Aug. 5, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### Office Notes - Section 4.0

<u>Page</u>	<u>Date</u>	<u>Description</u>
A1-A	March 2005	Updated Note A1.1 to include 2005 Interims.

A1-B Jan. 2005 No change printed on back of A1-A.

# **BRIDGE MANUAL ADDENDUM**

Revision: Sept. 2005

To: Section 1.2 - Loads
Date: Sept 01, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### Loads - Section 1.2

<u>Page</u>	<u>Date</u>	<u>Description</u>
4.2-1	Jan. 2005	This revision is implementing following AASHTO for deflection criteria.
4.3-1	Jan. 2005	No change printed on back of 4.2-1.

# **BRIDGE MANUAL ADDENDUM**

Revision: Sept. 2005

To: Section 3.43 - Steel Superstructure

Date: Sept 01, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### Steel Superstructure – Section 3.43

<u>Page</u>	<u>Date</u>	<u>Description</u>
4.5-1	Jan. 2005	No change reprinted on front of 5.1-1
5.1-1	Jan. 2005	This revision is implementing the use of welding in lieu of the current clip angle connection detail at the girder tension flange.
5.1-4	Jan. 2005	This revision is implementing the use of welding in lieu of the current clip angle connection detail at the girder tension flange.
5.2-1	Jan. 2005	This revision is implementing the use of welding in lieu of the current clip angle connection detail at the girder tension flange.
5.2-2	Jan. 2005	This revision is implementing the use of welding in lieu of the current clip angle connection detail at the girder tension flange.
5.2-3	March 2005	No change printed on back of 5.2-2

# **LRFD Bridge Design Guidelines**

Revision: Sept. 21, 2005
To: Section 8.1
Date: Oct 07, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### **Preliminary Design – Section 8.1**

Page Date	<u>Description</u>
2.14-1 Jan. 2005	No Change printed on front of 2.14-1.
2.15-1 June 2005	Changed Average Prices per Square foot of Deck.
2.16-2 Jan. 2005	Revised number of copies from three to one for Bridge Memo.
2.16-3 Jan. 2005	Revised number of copies from three to one for Bridge Memo.
2.16-4 Jan. 2005	Revised Senior Engineer to Bridge Location and Layout Designer And changed number of copies from three to one.
2.16-5 Jan. 2005	No change printed on back of 2.16-4.
2.16-8 Jan. 2005	No change printed on front of 2.16-9.
2.16-9 April 2005	Reworded note (signed).
2.16-10 April 2005	Reworded note (signed).
2.17-1 Jan. 2005	No change printed on back of 2.16-10.

# **LRFD Bridge Design Guidelines**

 Revision:
 Oct. 2005

 To:
 Section 2.5

 Date:
 Oct. 11, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### **General Quantities – Section 2.5**

<u>Page</u>	<u>Date</u>	<u>Description</u>
2-1.3	Jan. 2005	No change printed on front of 2.1-4.
2-1.4	Jan. 2005	Removed "If the deck is removed, the top of the top flange shall be included in the area computations." because it conflicted with Sec 216.50.

# **LRFD Bridge Design Guidelines**

Revision: Oct. 2005

To: Section 4.0 – Office Notes

Date: Oct. 14, 2005

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### Office Notes - Section 4.0

<u>Page</u>	<u>Date</u>	<u>Description</u>
J1-A	April 2005	Removed "as outlined in the Project Special Provisions" from note J1.9.
J1-B	Jan. 2005	Added "(Responsibility of Bridge Division)" above note J1.15.

# **BRIDGE DESIGN GUIDELINES**

Revision: 1.2-11/15/05
To: Section 1.2
Date: Jan. 03, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### Loads - Section 1.2

<u>Page</u>	<u>Date</u>	<u>Description</u>
2.3-1	Jan. 2005	Missing values for base pressure for transverse wind load to substructure from superstructure. Gave designer more flexibility for base pressures at design elevations above 30'
2.3-2	Jan. 2005	No change printed on back of 2.3-1.
2.3-3	Jan. 2005	Wind on live load application point changed from 6 ft. above slab to top of slab.
2.4-1	Jan. 2005	No change printed on back of 2.3-3
2.5-1	Jan. 2005	Braking load application point changed from 6 ft. above slab to top of slab.
2.5-2	Jan. 2005	No change prited on back of 2.5-1.

# **BRIDGE DESIGN GUIDELINES**

Revision: 1.3-11/15/05
To: Section 1.3
Date: Jan. 03, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

# Design Properties – Section 1.3

<u>Page</u>	<u>Date</u>	<u>Description</u>
i-1		Name change for section 1.1
Back		Blank
1.1-1	Jan. 2005	Modulus of elasticity values corrected for concrete columns and C.I.P. piles. Removed values to coincide with classes of reinforced concrete given in LRGD DG 1.4.2.1-1.
1.2-1	Jan. 2005	No change printed on back of 1.1-1.

# **BRIDGE DESIGN GUIDELINES**

Revision: 3.71-11/15/05 To: Section 3.71 Date: Jan. 03, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### Open Concrete Int. Bents – Section 3.71

<u>Page</u>	<u>Date</u>	<u>Description</u>
1.7-3	Jan. 2005	No change printed on front of 2.1-1.
2.1-1	Jan. 2005	Added clarification for temperature load factors that is not given in the table referenced.
2.1-2	Jan. 2005	Part of page 2.1-1 migrated to 2.1-2.
2.2-1	Jan. 2005	No change printed on back of 2.1-2
2.2-2	Jan. 2005	Removed wording for collision design that is repeated from section 1.2.2.5-2.
2.2-3	Jan. 2005	Page eliminated - Blank
2.3-1	Jan. 2005	Removed maximum reinforcement check to reflect 2006 interims.
2.3-2	Jan. 2005	Removed maximum reinforcement check to reflect 2006 interims. Added clarification for bottom of column design.
2.3-3	Jan. 2005	Format changes.
2.3-4	Jan. 2005	Format changes.
2.4-1	Jan. 2005	No change printed on front of 2.4-2.
2.4-2	Jan. 2005	Reorganized. Corrected procedure for moment magnification. Other corrections to variables.
2.4-3	Jan. 2005	Reorganized. Corrected procedure for moment magnification.
2.4-4	Jan. 2005	Part of page 2.4-3 migrated to 2.4-4

# **BRIDGE DESIGN GUIDELINES**

Revision: 8.1-12/05/06

To: Preliminary Design

Date: Jan. 03, 2006

The following revised sheets are to be inserted into the LRFD Design Guidelines Section 8.1. This cover sheet is for information only and need not be retained.

#### **Preliminary Design**

<u>Page</u>	<u>Date</u>	<u>Description</u>
3.3-6	Jan. 2005	No change printed on front of 3.4-1
		- '
3.4-1 thru	Jan. 2005	Replace old checklist with new ones
3.4-9		•

# **LRFD Bridge Design Guidelines**

Revision: Jan. 2006

To: Section 4.0 – Office Notes

Date: Jan. 03, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### Office Notes - Section 4.0

<u>Page</u>	<u>Date</u>	<u>Description</u>
В3-А	Jan. 2005	B3.7 New note (diamond grooving).
В3-В	Jan. 2005	No change reprinted on back of B3-A.
E5-B	Jan. 2005	No change reprinted on front of E6-A.
E6-A	Jan. 2005	Clarification on note E6.3 (coring).
H10-A2	June 2005	H10.16 revised to match note H10.86.
H10-B	June 2005	No change reprinted on back of H10-A2.

# **BRIDGE DESIGN GUIDELINES**

Revision: Jan. 18, 2006

To: Section 3.43 - Steel Superstructure

Date: March 01, 2006

The following revised sheets are to be inserted into the LRFD Design Guidelines Section 8.1.

This cover sheet is for information only and need not be retained.

#### Steel Superstructure - Section 3.43

<u>Page</u>	<u>Date</u>	<u>Description</u>
2.3-1	Jan. 2005	No change printed on front of 2.3-2
2.3-2	Jan. 2005	Change Maximum intermediate diaphragm spacing from 15'-0" to 25'-0"
3.4-1	Jan. 2005	Added note to alert designer flange width is less than 12"
3.4-2	Jan. 2005	Added note to alert designer flange width is less than 12"
3.4-3	Jan. 2005	Added note to alert designer flange width is less than 12"
3.4-4	Jan. 2005	No change printed on back of 3.4-3
3.4-5	Jan. 2005	No change printed on front of 3.4-6
3.4-6	Jan. 2005	Added note to alert designer flange width is less than 12"

# **LRFD Bridge Design Guidelines**

Revision: Jan. 18, 2006

To: Section 3.71 - Open Concrete Int. Bents

Date: Mar. 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### Open Concrete Int. Bents – Section 3.71

<u>Page</u>	<u>Date</u>	<u>Description</u>
3.6-1	Feb. 1999	No change printed on front of 4.1-1
4.1-1	Dec. 1999	Revised notes regarding keyed construction joints in bearing beam and tie
		beam

# **LRFD Bridge Design Guidelines**

Revision: March 2006

To: Section 4.0 – Office Notes

Date: March 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### Office Notes - Section 4.0

<u>Page</u>	<u>Date</u>	<u>Description</u>
A1-A	Aug. 2005	Removed Fatigue Stress Cases from note A1.1 LRFD.
A1-B	Jan. 2005	No change reprinted on back of A1-A.
I1-C	Jan. 2005	No change reprinted on front of I2-A.
I2-A	Jan. 2006	Clarification for figuring pullout strength of resin anchor systems.

# **BRIDGE DESIGN GUIDELINES**

Revision: March, 2006

To: Section 8.1 - Preliminary Design

Date: Mar. 01, 2006

The following revised sheets are to be inserted into the LRFD Design Guidelines Section 8.1.

This cover sheet is for information only and need not be retained.

#### **Preliminary Design - Section 8.1**

<u>Page</u>	<u>Date</u>	<u>Description</u>
2.30-1	Jan. 2005	Added note regarding FHWA submittal
2.30-2	Jan. 2005	No change printed on back of 2.30-1

# **BRIDGE DESIGN GUIDELINES**

Revision: March 2006

To: Section 2.4 -Standard Details

Date: May 01, 2006

The following revised sheets are to be inserted into the LRFD Design Guidelines.

This cover sheet is for information only and need not be retained.

#### Standard Details - Section 2.4

<u>Page</u> 2.2-1	<u>Date</u> Jan 2005	Description  No change printed on front of 3.1-1
3.1-1	Jan. 2005	Added new Hydrologic Tables
3.1-2	New	New sheet due to new tables

# **LRFD Bridge Design Guidelines**

Revision: May 2006

To: Section 3.55 – Prestressed Concrete I-Girders

Date: May 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### **Prestressed Concrete I-Girders – Section 3.55**

<u>Page</u>	<u>Date</u>	<u>Description</u>
1.1-1	Jan. 2005	Corrected Strand area from $A_{ps} = 0.215 \text{ in}^2 \text{ to } A_{ps} = 0.217 \text{ in}^2$ .
1.2-1	March 2005	No change reprinted on back of 1.1-1.

# **BRIDGE DESIGN GUIDELINES**

Revision: May, 2006

To: Section 8.1 - Preliminary Design

Date: May 01, 2006

The following revised sheets are to be inserted into the LRFD Design Guidelines Section 8.1.

This cover sheet is for information only and need not be retained.

#### **Preliminary Design - Section 8.1**

<u>Page</u>	<u>Date</u>	<u>Description</u>
4.4-1	Jan. 2005	No change printed on front of 4.4-2
4.4-2	Jan. 2005	Changed Wall Cost per Linear Foot

# **LRFD Bridge Design Guidelines**

Revision: May 2006

To: Section 3.76 – Concrete Pile Cap Non-Integral End Bents

Date: May 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### Concrete Pile Cap Non-Integral End Bents – Section 3.76

<u>Page</u>	<u>Date</u>	<u>Description</u>
3.2-2	April 2005	Removed "Point of rotation" call out.
3.2-3	April 2005	Removed "Rotate wings at front face of backwall" call out.
3.2-8	April 2005	No change reprinted on front of 3.3-1.
3.3-1	April 2005	Revised dimensioning wing fillet to fill face. Removed "Working Point" call
		out.

# **LRFD Bridge Design Guidelines**

Revision: May 2006

To: Section 3.77 – Concrete Pile Cap Integral End Bents

Date: May 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### Concrete Pile Cap Integral End Bents - Section 3.77

<u>Page</u>	<u>Date</u>	<u>Description</u>
3.1-1	April 2005	No change reprinted on front of 3.2-1.
3.2-1	April 2005	Revised dimensioning wing fillet to fill face. Removed "Working Point" call out.
3.3-1	April 2005	No change reprinted on front of 3.3-2.
3.3-2	April 2005	Removed "Point of rotation" call out.
3.4-1	April 2005	No change reprinted on front of 3.4-2.
3.4-2	April 2005	Removed "Point of rotation" call out.

# **LRFD Bridge Design Guidelines**

Revision: May 2006

To: Section 4.0 – Office Notes

Date: May 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### Office Notes - Section 4.0

<u>Page</u>	<u>Date</u>	<b>Description</b>
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B3-C1 Jan. 2005 Added note B3.24.

B3-C2 Jan. 2005 No change reprinted on back of B3-C1.

# **LRFD BRIDGE DESIGN GUIDELINES**

Revision: May, 2006

To: Section 8.1 - Preliminary Design

Date: May 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### **Preliminary Design - Section 8.1**

<u>Page</u>	<u>Date</u>	<u>Description</u>
2.16-8	Jan. 2005	No change printed on the front of 2.16-9.
2.16-9	Oct. 2005	Generalized CC/ATT:
2.30-1 2.30-2	March 2006 Jan. 2005	Clarified documentation with FHWA direction. No change printed on the back of 2.30-1.

# **LRFD Bridge Design Guidelines**

Revision: June 2006

To: Section 3.35 – Expansion Devices

Date: June 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### **Expansion Devices – Section 3.35**

<u>Page</u>	<u>Date</u>	<u>Description</u>
5.5-1	Jan. 2005	Corrected drafting error on backgouge weld symbol.
5.6-1	Jan. 2005	No change reprinted on back of 5.5-1.

# **LRFD Bridge Design Guidelines**

Revision: June 2006

To: Section 4.0 – Office Notes

Date: June 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### Office Notes - Section 4.0

Page Date Description	<u>Page</u>	<u>Date</u>	<u>Description</u>
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A4-D Jan. 2005 No change reprinted on front of A5-A.

A5-A Jan. 2005 Clarified note A5.2 concerning traffic handling.

# **LRFD Bridge Design Guidelines**

Revision: June 2006

To: Section 1.3 – Design Properties

Date: June 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### **Design Properties – Section 1.3**

<u>Page</u>	<u>Date</u>	<u>Description</u>
1.2-2	March 2005	No change reprinted on front of 1.2-3.
1.2-3	March 2005	Corrected error in equation.

# **LRFD Bridge Design Guidelines**

Revision: June 2006

To: Section 3.55 – Prestressed Concrete I-Girders

Date: June 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### **Prestressed Concrete I-Girders – Section 3.55**

<u>Page</u>	<u>Date</u>	<u>Description</u>
2.5-4	Jan. 2005	No change printed on front of 3.1-1.
3.1-1	Jan. 2005	Coordinated with Standard Library drawings.

# **LRFD Bridge Design Guidelines**

Revision: June 2006 A

To: Section 4.0 – Office Notes

Date: June 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### Office Notes - Section 4.0

D	D-4-	Danadatian
Page	Date	Description

H5-A Jan. 2005 Clarification for weld approval method, added note H5-9. H5-B Jan. 2005 Clarification for weld approval method, added note H5-24.

# **LRFD BRIDGE DESIGN GUIDELINES**

Revision: July 2006

To: Section 8.1 - Preliminary Design

Date: July 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### **Preliminary Design - Section 8.1**

<u>Page</u>	<u>Date</u>	<u>Description</u>
2.15-1.1	Oct 2005	No change printed on the front of 2.16-1.
2.16-1	Jan. 2005	Clarified notes 11 and 12 for Hydrologic data.

# **LRFD Bridge Design Guidelines**

Revision: Aug. 2006

To: Section 3.55 – Prestressed Concrete I-Girders

Date: Aug. 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### **Prestressed Concrete I-Girders – Section 3.55**

<u>Page</u>	<u>Date</u>	<u>Description</u>
2.2-1	Jan. 2005	Additional commentary and clarification of fpj.
2.2-2	Jan. 2005	Page layout change due to change on page 2.2-1.

# **LRFD Bridge Design Guidelines**

Revision: Aug. 2006

To: Section 3.71 – Open Concrete Intermediate Bents and Piers

Date: Aug. 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### Open Concrete Intermediate Bents and Piers - Section 3.71

<u>Page</u>	<u>Date</u>	<u>Description</u>
1.7-3	Jan. 2005	No change reprinted on front of 2.1-1.
2.1-1	Jan. 2006	Removed "Fatigue" Limit State.
2.3-1	Jan. 2006	Commentary for fatigue design.
2.3-2	Jan. 2006	No change reprinted on back of 2.3-1.

# **LRFD BRIDGE DESIGN GUIDELINES**

Revision: Aug. 2006

To: Section 8.1 - Preliminary Design

Date: Aug. 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### **Preliminary Design - Section 8.1**

<u>Page</u>	<u>Date</u>	<u>Description</u>
2.13-1	Jan. 2005	Increase rock blanket thickness to 1'-6". (On the Type 2 rock blanket, 60% of the rock must have a 1 cubic foot volume. A sphere of that volume has a 1.25 foot diameter. The Rock Blanket article from the PDM gives a range of 1.5 to 3.0 feet of thickness. If current 1 foot thick blanket for bridges over railroads is requested, a different rock size would need to be specified. The higher number is used to protect against moving water so 1.5 feet would normally be used on overpasses.)
2.13-2	Jan. 2005	No change printed on the back of 2.13-1.

# **LRFD Bridge Design Guidelines**

Revision: Oct. 2006

To: Section 3.31 – Bearings

Date: Oct. 02, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### Bearings - Section 3.31

<u>Page</u>	<u>Date</u>	<u>Description</u>
Blank		This page intentionally left blank.
3.1-1	Jan. 2005	Clarified min. distance between bolts and neoprene pad.
3.2-1	Jan. 2005	Clarified min. distance between bolts and neoprene pad.
3.2-2	Jan. 2005	Clarified min. distance between bolts and neoprene pad.

# **LRFD Bridge Design Guidelines**

Revision: Oct. 2006

To: Section 3.43 – Steel Superstructure

Date: Oct. 02, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### Steel Superstructure - Section 3.43

<u>Page</u>	<u>Date</u>	<u>Description</u>
1.1-1	Jan. 2005	Included AASHTO number for shear connector material.
1.2-1	Jan. 2005	No change reprinted on back of 1.1-1.
4.2-1	March 2005	1 ¼" diameter shear connectors removed from manual. (They may continue to be shown as an alternate on plans but discussion with project manager or liaison is required due to the 2 for 1 substitution.)
Blank		No change.

# **LRFD Bridge Design Guidelines**

Revision: Oct 2006

To: Section 3.77 – Concrete Pile Cap Integral End Bents

Date: Oct. 02, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

## Concrete Pile Cap Integral End Bents – Section 3.77

<u>Description</u>
No change reprinted on front of 2.2-1.
Delete wording that was repeated at another location in the Bridge Design Guidelines.
No change reprinted on front of 2.4-1.
Reminder to check bar size and spacing.
Delete wording that was repeated at another location in the Bridge Design Guidelines.
No change reprinted on back of 2.4-2.
No change printed on front of 5.1-1.
Clarification of equation for size of slotted hole.

# **LRFD Bridge Design Guidelines**

Revision: Oct. 2006

To: Section 3.82 – Spread Footings

Date: Oct. 02, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### Spread Footings - Section 3.82

<u>Page</u>	<u>Date</u>	<u>Description</u>
1.1-1	Jan. 2005	Added, "Foundation should be initially sized for Service Limit State" and added information.
1.2-1	Jan. 2005	Added information for footing depths greater than 36 inches.
2.1-1	Jan. 2005	Added Service Limit check information.
2.2-1	Jan. 2005	Added information about $\phi = 0.45$
2.3-3	Jan. 2005	No change printed on front of 2.4-1
2.4-1	Jan. 2005	Added Crack Control information.
2.4-2		New sheet, added Crack Control information.
3.1-1	Jan. 2005	Added information for footing depths greater than 36 inches.

# **LRFD Bridge Design Guidelines**

Revision: Oct. 2006

To: Section 4.0 – Office Notes

Date: Oct. 02, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### Office Notes - Section 4.0

Page	Date	Description
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H7-A Jan. 2005 No change reprinted on front of H9-A1.

H9-A1 Jan. 2005 Added "deviates **not** more than" to note H9.5.

# **LRFD BRIDGE DESIGN GUIDELINES**

Revision: Aug. 2006

To: Section 8.1 - Preliminary Design

Date: Aug. 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines.

This cover sheet is for information only and need not be retained.

#### **Preliminary Design - Section 8.1**

<u>Page</u>	<u>Date</u>	<u>Description</u>
2.14-1	Jan. 2005	No change printed on front of 2.15-1
2.15-1	Oct. 2005	Corrected calculation of reinforcing steel for bridges and box culverts.
2.15-2 2.16-1	July 2006	No change of information. Format change only.  No change printed on back of 2.15-2.

# **LRFD Bridge Design Guidelines**

Revision: Nov. 2006

To: Section 4.0 – Office Notes

Date: Nov. 01, 2006

The following revised sheets are to be inserted into the LRFD Bridge Design Guidelines. This cover sheet is for information only and need not be retained.

#### Office Notes - Section 4.0

Page	Date	Description

E5-B Jan. 2005 No change reprinted on front of E6-A.

E6-A Jan. 2006 Added note E6.6.